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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/759,307 | 01/20/2004 | Mi Ae Choi | 3449-0301P | 7177 |

2292 7590 09/17/2008
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| EXAMINER |
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HANCE, ROBERT J

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2623

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|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
|-------------------|---------------|

09/17/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/759,307 | Applicant(s) CHOI, MI AE | |
| | Examiner ROBERT HANCE | Art Unit 2623 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Remarks, filed 06/02/2008, with respect to the objection of Figures 1-3B have been fully considered and are persuasive. The objection to Figures 1-3B has been withdrawn.

2. Applicant's arguments filed 06/02/2008 with respect to claims 1-20 have been fully considered but they are not persuasive.

In response to applicant's argument on Pages 16-17 that Christopher and Tsutsui do not teach or suggest confirming whether or not a DSI control message is updated in response to a search request, and that Tsutsui does not teach or suggest searching for the file object from an updated root directory object when the DSI has been updated, applicant is reminded that it is the combination of Christopher and Tsutsui which teaches these features. Christopher is relied upon to teach checking a history table in response to a search request, a searching from an updated root directory in the case that the history table is updated. Tsutsui is relied upon to teach DSI control messages which contain root directory information. The combination of Christopher and Tsutsui teach the above mentioned features.

In response to applicant's argument on page 18 that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon

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hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The rationale for combining Christopher and Tsutsui would have been to more rapidly search files in a broadcast environment, and this combination would have been obvious to one of ordinary skill in the art at the time of the invention..

Applicant argues on page 18 that “the history table of Christopher may contain multiple entries . . .” The fact that the history table of Christopher may contain multiple entries is irrelevant – claim 1 of the instant invention is directed toward confirming whether a message is updated in response to a search request. Christopher does just this. Furthermore, while “Tsutsui does not disclose or suggest the ability of the DSI message to accommodate any historical data, let alone a table of historical data,” it is the **combination** of Tsutsui and Christopher, which would have been obvious to one of ordinary skill in the art at the time the invention was made, which contains the history table disclosed by Christopher embodied in the DSI disclosed by Tsutsui.

Applicant argues on page 18 that “the control logic of Christopher is tailored to search a history table, and is not tailored to confirm whether or not a Download Server Initiate control message is updated.” While it is true that Christopher does not teach confirming whether or not a DSI control message is updated, Christopher teaches confirming whether or not a history table is updated (col. 2 lines 25-35; col. 4 lines 25-35). This in combination with Tsutsui, who teaches a DSI control message with root

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directory information (col. 10 lines 35-47), renders obvious confirming whether or not the DSI control message has been updated, since this combination would have been obvious to one of ordinary skill in the art at the time the invention was made.

Applicant argues on page 18 that "the structure of the Download Server Initiate control message is specific. Thus, the control logic to confirm whether or not such a message is updated must also be specific to that structure." Applicant is reminded that, while Christopher does not teach confirming whether or not a DSI is updated, it is the **combination** of Christopher and Tsutsui, which would have been obvious to one of ordinary skill in the art at the time of the invention, that teaches a method for searching files in a broadcast stream by confirming whether or not a DSI is updated.

Applicant argues on page 19 that both Christopher and Tsutsui fail to disclose or suggest analyzing the contents of a DSI control message for updates. Again, it is the combination of Christopher and Tsutsui which teach analyzing the contents of a DSI control message for updates.

Claim Objections

3. Claim 14 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 14 merely restates a limitation found in claim 1.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christopher, Jr. et al., US Patent No. 5,008,820, in view Tsutsui et al., US Patent No. 6,668,158.

As to claim 1, Christopher, Jr. et al. disclose a file searching method comprising the steps of: confirming whether or not a history is updated in response to a search request for a file object (col. 2 lines 25-35 – a history file is checked to see if information relevant to the file(s) being searched is present); and searching the search-requested file object from at a new root directory object, in case that the history is updated (col. 4 lines 25-35).

Christopher, Jr. et al. do not teach a data broadcasting system, nor do they teach a control message of a Download Server Initiate (DSI). However, Tsutsui et al. disclose client based handling of data that is broadcast and a DSI with root directory information in a broadcast stream (col. 10 lines 35-47).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the searching method and history updating of Christopher Jr. et al. with the data broadcast system and DSI of Tsutsui et al. The rationale for this

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combination would have been to more rapidly search files in a broadcast environment.

This would have been obvious because the substitution of the search method of Christopher, Jr. et al. with the broadcast system of Tsutsui et al. would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 2, Christopher, Jr. et al. disclose the file searching method according to claim 1, wherein the step of confirming comprises confirming whether or not a history is updated (col. 2 lines 25-35).

Christopher, Jr. et al. do not disclose checking a Download Server Initiate (DSI). However, Tsutsui et al. discloses a DSI in a data broadcast stream (col. 10 lines 35-47).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Christopher, Jr. et al. with those of Tsutsui et al. It would have been obvious to make this combination because the substitution of the DSI as disclosed by Tsutsui et al. for the history file of Christopher, Jr. et al. would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 3, Christopher, Jr. et al. disclose the file searching method according to claim 1, wherein the step of confirming comprises: confirming that the history is not updated by confirming an absolute path is not written, and a basic root directory object is designated, in the history (col. 1 lines 45 - 2 lines 35 - if no information relative to the file is present, the search is performed from the root directory).

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Christopher, Jr. et al. do not disclose a basic root directory object designated in the non-updated control message of the Download Server Initiate (DSI). However, Tsutsui et al. disclose designating the basic root directory in the non-updated DSI (col. 10 lines 35-47).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Christopher, Jr. et al. with those of Tsutsui et al. It would have been obvious to make this combination because the substitution of the DSI with root information, as disclosed by Tsutsui et al., for the history file of Christopher, Jr. et al. would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 4, Christopher, Jr. et al. disclose the file searching method according to claim 3, wherein the basic root directory object is a directory object located in a hierarchical architecture and used in an initial search for the file object (col. 1 lines 45-55, col. 2 lines 25-35 - if no information relative to the file is present, the search is performed from the root directory).

As to claim 5, Christopher, Jr. et al. disclose the file searching method according to claim 1, wherein the absolute path is written and the updated root directory object is designated in the history (col. 3 lines 59-61; col. 5 lines 17-19).

Christopher, Jr. et al. do not disclose a new root directory object being designated in the control message of the Download Server Initiate (DSI). However,

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Tsutsui et al. disclose designating root directory information in the DSI (col. 10 lines 35-47).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the updated history file of Christopher, Jr. et al. with the DSI of Tsutsui et al. The rationale for this combination would have been to use the file searching scheme of Christopher, Jr. et al. in a data broadcast environment, having the DSI take the place of the history file. It would have been obvious to make this combination because the substitution of the DSI with root information, as disclosed by Tsutsui et al., for the history file of Christopher, Jr. et al. would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 6, Christopher, Jr. et al. disclose the file searching method according to claim 5, wherein the updated root directory object is a directory object of a hierarchical architecture corresponding to the absolute path. (col. 5 lines 17-19).

As to claim 7, Christopher, Jr. et al. disclose the file searching method according to claim 5, wherein the absolute path comprises at least two directory object paths (col. 3 lines 59-61 - each time a file is found an entry is added to the history file, implying multiple paths exist).

As to claim 8, Christopher, Jr. et al. disclose the file searching method according to claim 1, further comprising: updating the history when the file object is initially

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searched (col. 3 lines 59-61; col. 5 lines 17-19 - entries are added when files are found and opened).

Christopher, Jr. et al. do not disclose a control message of the Download Server Initiate (DSI). However, Tsutsui et al. disclose a control message of a DSI with directory information (col. 10 lines 35-47).

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the updated history file of Christopher, Jr. et al. for the DSI of Tsutsui et al. The rationale for this combination would have been to use the file searching scheme of Christopher, Jr. et al. in a data broadcast environment, having the DSI take the place of the history file. It would have been obvious to make this combination because the substitution of the history file of Christopher, Jr. et al. for the DSI with directory information, as disclosed by Tsutsui et al., would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 9, Christopher, Jr. et al. disclose the file searching method according to claim 8, the step of updating the history comprising: identifying the absolute path and the updated root directory object when the file object is initially searched (col. 3 lines 59-61; col. 5 lines 17-19 – entries are added when files are found).

Christopher, Jr. et al. do not disclose a control message of the Download Server Initiate (DSI). However, Tsutsui et al. disclose a control message of a DSI with directory information (col. 10 lines 35-47).

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It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the updated history file of Christopher, Jr. et al. for the DSI of Tsutsui et al. The rationale for this combination would have been to use the file searching scheme of Christopher, Jr. et al. in a data broadcast environment, having the DSI take the place of the history file. It would have been obvious to make this combination because the substitution of the history file of Christopher, Jr. et al. for the DSI with directory information, as disclosed by Tsutsui et al., would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 10, Christopher, Jr. et al. disclose a file searching method, the method comprising the steps of: confirming whether or not an absolute path exists in a history file, in response to a search request for a file object (col. 2 lines 25-35; col. 3 lines 59-61 – if the information required is present it is used directly without the need for further tree searching); and searching for the file object from an updated root directory object corresponding to the absolute path, when the absolute path is confirmed to exist (col. 4 lines 25-35).

Christopher, Jr. et al. do not disclose searching files in a data broadcasting system, nor do they teach a Download Server Initiate (DSI). However, Tsutsui et al. disclose client based handling of data that is broadcast and a DSI in a broadcast stream (col. 10 lines 35-47).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the searching method and history updating of Christopher Jr. et al.

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with the data broadcast system and DSI of Tsutsui et al. The rationale for this combination would have been to more rapidly search files in a broadcast environment. This would have been obvious because the substitution of the search method of Christopher, Jr. et al. with the broadcast system of Tsutsui et al. would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 11, Christopher, Jr. et al. disclose the file searching method according to claim 10, wherein the updated root directory object is a directory object of a hierarchical architecture corresponding to the absolute path (col. 5 lines 17-19).

As to claim 12, Christopher, Jr. et al. disclose the file searching method according to claim 10, wherein the absolute path comprises at least two directory object paths (col. 3 lines 59-61 - each time a file is found an entry is added to the history file, implying multiple paths exist).

As to claim 13, Christopher, Jr. et al. disclose the file searching method according to claim 10, further comprising: creating the absolute path when the file object is searched at least one time; and writing the absolute path in the history (col. 3 lines 59-61; col. 5 lines 17-19 - entries are added when files are found and opened).

Christopher, Jr. et al. do not disclose a control message of the Download Server Initiate (DSI). However, Tsutsui et al. disclose a control message of a DSI with directory information (col. 10 lines 35-47).

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the updated history file of Christopher, Jr. et al. for the DSI of Tsutsui et al. The rationale for this combination would have been to use the file searching scheme of Christopher, Jr. et al. in a data broadcast environment, having the DSI take the place of the history file. It would have been obvious to make this combination because the substitution of the history file of Christopher, Jr. et al. for the DSI with directory information, as disclosed by Tsutsui et al., would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 14 Christopher discloses confirming whether or not a history is updated in response to a search request for a file object (col. 2 lines 25-35 – a history file is checked to see if information relevant to the file(s) being searched is present).

Christopher, Jr. et al. do not a control message of a Download Server Initiate (DSI). However, Tsutsui et al. disclose client based handling of data that is broadcast and a DSI with root directory information in a broadcast stream (col. 10 lines 35-47).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the searching method and history updating of Christopher Jr. et al. with the data broadcast system and DSI of Tsutsui et al. The rationale for this combination would have been to more rapidly search files in a broadcast environment. This would have been obvious because the substitution of the search method of Christopher, Jr. et al. with the broadcast system of Tsutsui et al. would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 15 see similar rejection to claim 5.

As to claim 17 Christopher discloses a file searching method, the method comprising the steps of:

receiving a first search request for a file object; searching for the file object from a basic root directory object of a history file in response to the first search request (col. 2 lines 25-35; col. 4 lines 25-35; Fig. 2 – when a search is performed, the history file is examined. If no results are returned (i.e. the search has not been previously performed) the search begins at the root directory);

updating the history file by using at least one of an absolute path and an updated basic root directory object for the file object in response to said step of searching in response to the first search request (col. 3 lines 53-65; col. 4 lines 25-35);

receiving a second search request for the file object (col. 2 lines 25-35; col. 4 lines 25-35); and

searching for the file object by using the at least one of the absolute path and the updated basic root directory object, based on the updated history file (col. 2 lines 25-35; col. 4 lines 25-35).

Christopher, Jr. et al. do not teach a data broadcasting system, nor do they teach a control message of a Download Server Initiate (DSI). However, Tsutsui et al. disclose client based handling of data that is broadcast and a DSI with root directory information in a broadcast stream (col. 10 lines 35-47).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the searching method and history updating of Christopher Jr. et al. with the data broadcast system and DSI of Tsutsui et al. The rationale for this combination would have been to more rapidly search files in a broadcast environment. This would have been obvious because the substitution of the search method of Christopher, Jr. et al. with the broadcast system of Tsutsui et al. would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 18 see similar rejection to claim 17, where the combined system of Christopher and Tsutsui disclose updating the DSI with an absolute path for the file object after the first search is performed (Christopher col. 3 lines 53-65; col. 4 lines 25-35).

As to claim 19 the combined system of Christopher and Tsutsui disclose the method according to claim 18, wherein, the searching step comprises: skipping a directory object of a hierarchical architecture of the absolute path and directly accessing the hierarchical architecture of the next directory object of the absolute path when the directory object is written to the absolute path of the updated Download Server Initiate control message (Christopher col. 2 lines 25-35; col. 4 lines 25-35; col. 5 lines 17-19).

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4. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christopher and Tsutsui as applied to claims 1 and 15 above, and further in view of Applicant's Admitted Prior Art (AAPA).

As to claim 16 the combined system of Christopher and Tsutsui fail to disclose the method according to claim 15, wherein the information concerning the basic root directory object comprises a "ServiceGatewayInfo()" field of Download Server Initiate control message.

However, AAPA discloses information concerning basic root directory object comprising a ServiceGatewayInfo() field of a DSI (Paragraphs 35-36).

Therefore it would have been obvious to modify the combined system of Christopher and Tsutsui with the teachings of AAPA. The rationale for this modification would have been to place the root directory object in a standard location of the DSI control message, thereby simplifying the process of locating and traversing the directory structure.

As to claim 20 see similar rejection to claim 16.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT HANCE whose telephone number is (571)270-5319. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (571)272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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ROBERT HANCE
Examiner
Art Unit 2623

/ROBERT HANCE/
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/Hunter B. Lonsberry/
Primary Examiner, Art Unit 2623